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AMERICAN SCHOOL HEALTH ASSOCIATION

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Devoted to the interests and advancement of those engaged in school health activities and the service rendered by them

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Old Way . . .

CURING RICKETS in the CLEFT of an ASH TREE

FOR many centuries,—and apparently down to the present time, even in this country—ricketic children have been passed through a cleft ash tree to cure them of their rickets, and thenceforth a sympathetic relationship was supposed to exist between them and the tree.

Frazer* states that the ordinary mode of effecting the cure is to split a young ash sapling longitudinally for a few feet and pass the child, naked, either three times or three times three through the fissure at sunrise. In the West of England, it is said the passage must be "against the sun." As soon as the ceremony is performed, the tree is bound tightly up and the fissure plastered over with mud or clay. The belief is that just as the cleft in the tree will be healed, so the child's body will be healed, but that if the rift in the tree remains open, the deformity in the child will remain, too, and if the tree were to die, the death of the child would surely follow.

*Frazer, J. G.: The Golden Bough, vol. 1, New York, Macmillan & Co., 1923

It is ironical that the practice of attempting to cure rickets by holding the child in the cleft of an ash tree was associated with the rising of the sun, the light of which we now know is in itself one of Nature's specifics.

New Way . . .

Preventing and Curing Rickets *with* MEAD'S OLEUM PERCOMORPHUM

NOWADAYS, the physician has at his command, Mead's Oleum Percomorphum, a Council-Accepted vitamin D product which actually prevents and cures rickets, when given in proper dosage.

Like other specifics for other diseases, larger dosage may be required for extreme cases. It is safe to say that when used in the indicated dosage, Mead's Oleum Percomorphum is a specific in almost all cases of rickets, regardless of degree and duration.

Mead's Oleum Percomorphum because of its high vitamins A and D content is also useful in deficiency conditions such as tetany, osteomalacia and xerophthalmia.

COUNCIL-ACCEPTED: Oleum Percomorphum With Other Fish-Liver Oils and Viosterol. Contains 60,000 vitamin A units and 8,500 vitamin D units per gram and is supplied in 10 c.c. and 50 c.c. bottles; and in bottles containing 50 and 250 capsules.

MEAD JOHNSON & COMPANY, EVANSVILLE, INDIANA, U.S.A.

THE JOURNAL OF SCHOOL HEALTH

Devoted to the interests and advancement of school health service and instruction. Your participation by membership is solicited.

Vol. XVIII JANUARY, 1948 No. 1

APPRAISAL FORM FOR EVALUATING SCHOOL HEALTH SERVICES

(Revised 1947)

MICHIGAN SCHOOL HEALTH ASSOCIATION

In Cooperation With

AMERICAN SCHOOL HEALTH ASSOCIATION*

REPORT

COMMITTEE ON APPRAISAL OF SCHOOL HEALTH SERVICES*

Michigan School Health Association

Purpose

An evaluation by school administrators and health officers of services rendered in behalf of school children to provide an effective stimulus toward higher standards and greater accomplishments in school health service.

I. General Information (check one)

A. Administration of the School Health Program

1. School administration Yes..... No.....
   a. Responsibility of: the administrator ☐, school physician ☐, or other ☐.
      Specify.....
2. Department of Health Yes..... No.....
   a. Responsibility of: a health department maintained by the city ☐, county ☐, joint city-county ☐.
3. Joint supervision by 1 and 2 Yes..... No.....

B. Appointment of Personnel

1. Merit System Yes..... No.....
   a. Definition: a merit system is any system of appointment where persons responsible for rendering health services are selected on the basis of training and experience in this work.
2. Other Yes..... No.....
   a. Describe .....
      .....
      .....
      .....
      .....

*Approved by the Governing Council of the American School Health Association, October 8, 1947.

C. Qualifications of Public Health Personnel

1. A.P.H.A. Standards Yes..... No.....
   a. Director: a medical officer with at least one year's formal training in public health. Yes..... No.....
   b. Nurses: registered nurses with certificate or degree in public health nursing. Yes..... No.....
   c. Sanitarian or Sanitary Engineer: degree or certificate in sanitary engineering from a school of public health. Yes..... No.....
   d. Health Educator: degree from college, major health and physical education, or one of the health sciences. Teaching experience or training in public health. Yes..... No.....
2. General public health training for position held Yes..... No.....
   a. Definition: Public health training for position held with employee having had less than the requirements of the A.P.H.A. standards yet with training and experience in public health work.

D. Availability of Health Workers for the Schools

1. Public health nurses' services are available to the schools Yes..... No.....
   a. How many public health nurses are employed in the community? .....
   b. What proportion of each public health nurse's time is available to the schools during the year? .....
2. Physician's services are available to the schools Yes..... No.....
   a. How much physician time per week per 1,000 school children is available? .....
3. Health Educator's services are available to the schools Yes..... No.....
   a. How much health educator time per week per 1,000 school children is available? .....
4. Sanitarian's or Sanitary Engineer's services are available to the schools Yes..... No.....
   a. How much sanitarian or sanitary engineer time per week per 1,000 school children is available? .....

5. Dental services are available to the schools
Yes..... No.....
   a. How much dentist time per week per 1,000 school children is available? .....
   b. How much dental hygienist time per week per 1,000 school children is available? .....

E. General Statistics
1. Community (City .....
(County .....
   a. General population .....
School population (Public elementary .....
(Public high school .....
(Private elementary .....
(Private high school .....
   b. Extent of jurisdiction (in square miles) .....
   c. Organized health department .....
   d. Water supplies
(Municipal Yes..... No..... % of children served .....
(Private Yes..... No..... % of children served .....
   e. Sewage disposal
(Sewage disposal plant Yes..... No.....
(Septic tanks Yes..... No.....
(Other Yes..... No.....

F. Finances
1. General tax rate of community .....
2. School tax rate of community .....
   a. Definition: The school tax rate of the community or district is the school operating tax, school debt service tax, school building and site fund tax, etc.
3. Budget for school health program
Source (Board of Education Yes..... No.....
(Board of Health Yes..... No.....
(Joint Yes..... No.....
   a. Amount of current budget for school health program .....
   b. Per capita amount
      (1) Definition: The per capita is the total amount provided for health service in the school health budget divided by average enrollment.

1942 ..... 1945 .....
1943 ..... 1946 .....
1944 ..... 1947 .....

II. Medical Examination of School Children

A. Is there a plan for providing in-service instructions to teachers on signs or symptoms of disease or abnormalities which serve as a basis for referring children for medical examination? Yes..... No.....

Note: The medical examination is an important part of the school health program. The teacher must possess fundamental knowledge of the signs and symptoms of disease or abnormalities which enables her to select the children who need a medical examination.

B. Are pupils selected for medical examinations by teachers following her observation or conference with the nurse? Yes..... No.....

Note: It has been demonstrated that medical examinations are most fruitful when the student has been specifically referred to the physician because parent, teacher, or nurse suspected something was wrong. Such examinations should always take precedence over routine examinations.

C. What percent of the new entrants have had a medical examination during the calendar year? .....

Note: A new entrant is a child in the kindergarten or first grade, or any pupil new to the school system for whom a school health record is not available.

Examined by	*Number*	*Percent*
Private physician	.....	.....
School physician	.....	.....
Total	.....	.....

D. Are medical examinations made at other times during the school life of the child? Yes..... No.....

E. Are the findings of the above examinations made known to the teacher? Yes..... No.....

Note: The teacher must be made familiar with the findings of the medical examination in order intelligently to modify the school program to meet the needs of the child. By knowing the physical condition of the child, she understands him better and can interpret the child's needs to his parents.

F. Is a cumulative pupil health record kept by the teacher on which she records her observations of health and behavior? Yes..... No.....

Note: It is important to keep a cumulative record in order that health information be passed on from teacher to teacher and from school to school.

G. Is there pre-examination preparation? Yes..... No.....

Note: To make the examination an educational experience

and an effective procedure, adequate preparation must be made by all who participate in the examination. The nurse has the responsibility to choose the proper location for the clinic. She should see that the necessary clinical equipment is available and that privacy is provided for during the examination. The teacher should interpret the meaning of the medical examination to the children. She should encourage the parent's presence during the examination. Lay health committees can well be utilized for arranging transportation and assisting as clerks during the examinations.

III. Visual Defects

A. Definition: A visual defect may be said to be present when there is any marked symptom of eye strain; when there is a deviation of 20/40 or more in either eye by the Snellen test, indicating nearsightedness; or when the pupil fails the plus sphere, indicating farsightedness.

B. Vision testing done by nurse ☐, by teacher ☐.

C. Are funds available to provide eye glasses for all needy children in the school system? Yes..... No.....

D. Are funds available to provide for other treatment for visual or eye defects for all needy children? Yes..... No.....

E. How many children per thousand tested were found to have visual defects? .....

F. What percent of children secured corrections for their visual defects? .....

G. Are sight-saving classes available in the school system? Yes..... No.....

IV. Hearing Defects

Note: Hearing loss in one or both ears may be considered as being present where there is a loss of 20 decibels as measured by the pure tone audiometer. Group audiometer testing may be used for screening purposes but actual loss should be measured by the pure tone audiometer.

A. What percent of the children enrolled were tested by the teacher? ..... by the nurse? ..... by an audiometer technician? .....

B. What method of testing is used: watch ☐, tuning fork ☐, voice ☐, group audiometer ☐, individual audiometer ☐.

C. How many children were found to have a 20 decibel (or greater) hearing loss? .....

D. How many children with hearing losses were referred to physicians? .....

E. Are classes for hard-of-hearing children available within the school system? Yes..... No.....

V. Heart Defects

Note: The criteria used in judging heart conditions are a history of cardiac disease, enlargement of heart, shortness of breath, murmurs, marked anemia, and a history suggestive of rheumatic fever.

A. What percent of the children examined by a physician were found to have cardiac pathology? .....

B. Are special education classes for cardiacs available in the school system? Yes..... No.....

VI. Dental Health

A. Are educational efforts carried on in the school system to promote dental health? Yes..... No.....

1. By whom? teacher ☐, health educator ☐, nurse ☐, dentist ☐, dental hygienist ☐.

B. Is a periodic dental examination or inspection made for
elementary students? Yes..... No.....
secondary students? Yes..... No.....

1. By whom? dentist ☐, dental hygienist ☐, physician ☐, nurse ☐, teacher ☐.
2. Where? Schoolroom ☐, school dental clinic ☐, private office ☐.
3. Periodic examination is semiannual ☐, annual ☐, biennial ☐.

C. Has provision been made for the correction of dental defects? Yes..... No.....

1. Through referral of children to a school dental clinic ☐.
2. Through referral of children to dentists in private practice ☐.

D. What percent of the school population received dental treatment during the year? .....

E. Are "follow-up" efforts made to insure the correction of dental defects? Yes..... No.....

1. By whom? nurse ☐, teacher ☐, dental hygienist ☐.

VII. Orthopedic Defects

A. Do provisions exist on state or local level for diagnosis and treatment of orthopedic defects? Yes..... No.....

B. Is special supervision provided by the school health program?

1. Orthopedic surgeon Yes..... No.....
2. Orthopedic nurse Yes..... No.....
3. Public health nurse Yes..... No.....

C. Are there specially trained teachers for the handicapped child? Yes..... No.....

D. Are there special rooms and facilities for use by the handicapped child? Yes..... No.....
E. Special classes Yes..... No.....
F. Is special transportation provided to and from the school and home? Yes..... No.....

VIII. Mental Hygiene

A. Are there provisions in the community for mental hygiene programs? Yes..... No.....
Child guidance? Yes..... No.....
B. Are referrals from the school to clinic readily made and accepted by the clinic? Yes..... No.....
C. Are home visits made by the visiting teacher or social worker when indicated by child's condition? Yes..... No.....
D. Are services available from a psychiatrist ☐, a psychologist ☐, a physician ☐, a social worker ☐?
E. Are clinical records from the guidance clinic freely available to the teacher and the nurse? Yes..... No.....

IX. Follow-Up and Correctional Program

In the interest of uniformity, a defect will be considered corrected if the child has received or is receiving treatment from a qualified physician. (In the case of certain defects which require treatment over a long period, improvement may be considered as a correction.)

A. Do the following groups participate in the follow-up program?

1. Public health nurse Yes..... No.....
Note: The public health nurse, through her close contact with the home, can stimulate the parents to seek the necessary medical attention brought to light by the school examination. The public health nurse, being familiar with the financial status of the family and community treatment facilities, can assist the parent in obtaining needed medical and dental attention for the child.
2. Teachers Yes..... No.....
Note: Because the teacher has frequent opportunities to see the parents of the children in need of corrective work, she should take advantage of the opportunities and interpret the child's health needs to the parents. Carefully worded notes and visits to the home are desirable methods by which the teacher shares in the follow-up program.
3. Lay Health Committee Yes..... No.....
Note: The lay health committee can assist in the follow-up by providing transportation, when necessary, to treat-

ment centers, doctor's office, or welfare agencies. They may also assist by practicing health work in mothers' clubs, parent-teacher associations, and in other similar community agencies and groups.

B. Are the professional services available for families unable to meet the full cost of service adequate ☐, inadequate ☐?
Note: In most communities, medical services are available for correction of defects in children if a proper survey is made of the existing resources. Local resources usually include: private physicians and dentists; public medical and dental clinics; private foundations and charities; welfare agencies; and service clubs.

X. Prevention of Communicable Disease

A. Diphtheria

1. Percent of children who have had two injections of alum precipitated toxoid .....
2. Percent of children receiving a "booster" dose of alum precipitated toxoid upon entering school .....
Note: Alum precipitated toxoid is generally agreed to be the best known immunizing product for the prevention of diphtheria.
"Booster" dose: Immunity is relative and gradually wears off, faster in some cases than others, but on the average, a "booster" dose is considered necessary after an interval of three to five years following the initial injections in order to raise the level of immunity.

B. Smallpox

1. Percent of children successfully vaccinated .....
Note: A successful vaccination is one that has left a scar.

C. Whooping Cough

1. Percent of children who have received at least three whooping cough injections prior to admission to school .....

XI. Control of Communicable Disease

A. Are all children suspected by teachers of having a communicable disease promptly isolated and excluded from school? Yes..... No.....
Note: It is recommended that all children showing signs of possible communicable disease in the school room be promptly isolated and sent home under safe escort as soon as possible.

B. Is epidemiological investigation of disease carried out by the health department? Yes..... No.....
Note: This includes a complete investigation of reported

cases for the purpose of:

1. Determining if possible the source of infection.
2. Determining the number of persons and the identity of each who has been exposed.
3. Determining the immunity status of those who have been exposed.
4. Giving advice and instructions to all concerned for the purpose of preventing further spread of the disease.

C. Statistics

	1944		1945		1946		1947	
	Cases	*Deaths*	*C*	*D*	*C*	*D*	*C*	*D*
1. Number of cases and deaths of diphtheria in children of school age								
2. Number of cases and deaths of whooping cough in children of school age								
3. Number of cases and deaths of smallpox in children of school age								

XII. Tuberculosis Control

A. Tuberculosis death rate for 1945 .....; 1946 .....; 1947 .....

B. Are facilities for tuberculin testing available when indicated?
Yes..... No.....

Note: It is presumed that the tuberculin test is indicated first when there is a case of tuberculosis in the family or when tuberculin testing in the classroom is done as a lead to the families where there might be cases of tuberculosis infection. The term "available" means that tuberculin testing could be done by any public health agency, such as the health department, tuberculosis society, through arrangement with the county medical society, or by private physician.

C. Has a chest X-ray program been carried out in the high schools? Yes..... No.....

Note: X-raying of high school students is considered a good public health practice. If the high school group has been X-rayed at least once during the high school period, the interpretation should be that a chest X-ray program has been carried out.

D. Are X-ray facilities available for use in routine X-raying of teachers, school personnel, and high school athletes?
Yes..... No.....

Note: Available X-ray facilities should be defined as such when X-ray services are free or at a very low cost to the teachers, school personnel, and students.

E. Are follow-up services for tuberculosis contacts provided?
Yes..... No.....

Note: Follow-up services for tuberculosis contacts should be considered as provided when the health agencies follow-up at least 75 percent of all contacts of known cases and where contacts who have a positive tuberculin test have chest X-rays.

XIII. School Sanitation

A. Number of schools in the area .....
B. Percent of building sites of sufficient area and well drained .....
C. Percent of buildings in good condition .....
1. Are blackboards of proper material, location, and in good repair? Yes..... No.....
D. Heating and ventilation: percent of heating plants in good repair .....
1. Can proper humidity be maintained? Yes..... No.....
2. Are thermometers available? Yes..... No.....
E. Percent of school buildings with adequate lighting? .....
F. Screening: Are windows and doors screened?
Yes..... No.....
G. Seating: Are seats movable? Yes..... No.....
1. Adjustable? Yes..... No.....
2. In good repair? Yes..... No.....
H. Safety: Fire hazards? Yes..... No.....
1. First aid kit? Yes..... No.....
2. Fire drills? Yes..... No.....
3. Proper exits? Yes..... No.....
4. Safe play area and equipment? Yes..... No.....
I. Water Supply: Is there proper well construction and location?
Yes..... No.....
1. Percent of buildings with safe water supply .....
2. Are safe dispensing facilities available? Yes..... No.....
J. Sewage disposal: Proper type? Yes..... No.....
1. Nuisance or health hazard present? Yes..... No.....
K. Toilet facilities: Proper number of toilets, lavatories, urinals, and showers? Yes..... No.....
1. Soap and towels furnished? Yes..... No.....
2. Is adequate ventilation provided? Yes..... No.....

L. Food handling: Satisfactory preparation? Yes..... No.....
   1. Dish sterilization? Yes..... No.....
   2. Refrigeration? Yes..... No.....
   3. Pasteurized milk used? Yes..... No.....
   4. Proper garbage disposal? Yes..... No.....

M. Janitor service: Are rooms and hallways clean?
   Yes..... No.....
   1. Are toilets sanitary? Yes..... No.....

XIV. Recreational Programs

A. Are trained personnel available to supervise all phases of the recreational program? Yes..... No.....
   Note: Trained personnel in recreation may mean someone who has had formal courses in recreation, completed a four-year recreational course, has had refresher courses, or has had in-service training on the job.

B. Are intramural programs available for all students?
   Yes..... No.....

C. Is medical attention available at all competitive contests?
   Yes..... No.....

D. Are medical examinations required of all (male and female) contestants in competitive contests? Yes..... No.....

E. Is there supervised play for the lower grades of elementary schools? Yes..... No.....
   Note: Supervised play for the lower grades presupposes that some competent adult who has knowledge of the physical welfare of the children supervises physical activity suitable to the ability of each child. This may be the individual teacher or, in some cases, may be a physical director.

F. Is there teacher participation in planning and supervising room activity? Yes..... No.....
   Note: Teacher participation in planning and supervising room activity involves a carefully planned program for the whole school where the teacher participates in planning activities for her own group and has direct supervision of the activity of those children.

XV. Nutritional Program

A. Is the nutritional program under the immediate supervision of the
   1. Department of home ecnomics ☐
   2. Department of biology ☐
   3. Department of school health ☐
   4. Other ☐

B. Are special methods used:
   1. To assess nutritional status of the children?
      Yes..... No.....
   2. To assist in treatment of the malnourished child?
      Yes..... No.....

C. Is there special emphasis on classroom instruction in nutrition? Yes..... No.....

D. Is control or supervision exercised over the cafeteria?
   Yes..... No.....

E. Do the pupils, parents, and teachers participate in the planning, preparing, and serving of food in the school cafeteria?
   Yes..... No.....

F. Is there an analysis of cafeteria dietaries by school health authorities to insure an adequate diet? Yes..... No.....
   1. How often is the analysis made? .....

G. Type of luncheon served: cafetria ☐, lunch plate ☐
   1. Balanced meal? Yes..... No.....
   2. Popular foods? Yes..... No.....

H. Is there a program to influence the food habits of those who
   1. Go home for lunch? Yes..... No.....
   2. Carry their own lunch? Yes..... No.....
   3. Go to a popular eating place for lunch? Yes..... No.....

XVI. What local agencies participate in the school health program?

A. Public health committees or associations ☐
B. Medical societies ☐
C. Dental societies ☐
D. Nursing associations ☐
E. Service clubs ☐
F. Teacher groups ☐
G. Parent-teacher associations ☐
H. Others (specify) .....
.....
.....

XVII. Members of Committee

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C. D. Barrett, M.D., Grand Haven, Mich.
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A NEW APPROACH TO EDUCATION IN TUBERCULOSIS AND TUBERCULOSIS CONTROL IN SCHOOLS*

J. ARTHUR MYERS, M.D.

In the United States there are approximately 45,000,000 children of whom 34,700,000 are of grade and high school ages. There are also large numbers of college students, together with more than 1 million employees of schools. Thus among the children, young adults and personnel of the school system, there is approximately one-third of the entire population of the nation. This is an exceedingly important third. The educators of the school system are highly trained and experienced in transmitting information to the minds of the children and young adults and teaching them how and where to gain knowledge as they proceed through life. They play a large role in shaping the thinking and the character which the children will carry into and through adulthood. They teach them reading, writing, mathematics and various other subjects at the time in life when their minds are most receptive and retentive.

A national problem whose solution requires decades is best solved by familiarizing the children with it and having them begin to participate in its solution at the earliest possible age. This applies especially to the nation's health. The outstanding health workers of the ages have recognized this fact, and those of more recent times such as Osler, Biggs, and Trudeau, have especially emphasized it.

When the National Tuberculosis Association was organized in 1904, Dr. E. L. Trudeau was elected its first president. That election took place here in Atlantic City. The next meeting was held in Washington in 1905 when Dr. Trudeau presented the first president's address. At that time our tuberculosis situation was desperate. Approximately two hundred people were dying every year for each 100 thousand of the population. In great cities and some of the smaller ones, a high percentage of school children had primary tuberculosis. Indeed, almost 100 per cent of high school students were infected. Babies were dying from the acute forms such as meningitis and miliary tuberculosis everywhere. Teen-age girls and boys were being struck down in large numbers. All of this Trudeau knew. In his presidential address he said, "The first and greatest need is education; education of the people, and through them, education of the state. It is evident that if every man and woman in the United States were familiar with the main facts

*Presented before the Annual Meeting of the American School Health Association, Atlantic City, New Jersey, October 5, 1947.

relating to the manner in which tuberculosis is communicated and the simple measures necessary for their protection, not only might we reasonably expect as a direct result of this knowledge a great diminution in the death rate of the disease but the people would soon demand and easily obtain effective legislation for its prevention and control.

"When a state has once become well educated and not before, will the ever requisite necessary to the control of the disease be forthcoming." Again he said, "Education should begin by teaching in the public schools the main facts relating to the transmission of tuberculosis." Again he said, "Education will help to crush the vampire of quackery which preys ever on the misfortunes and ignorance of the poor consumptive, appealing with devilish ingenuity through spacious advertisements of mysterious specifics and cures, through his credulity and hopes masquerading under the guise of science and even of philanthropy, in order to wring from him his small savings, and then cast him off when these have been exhausted and his disease well advanced, doomed to a lingering death, helpless, hopeless, and a heavy burden on the overtaxed resources of a community."

Although Trudeau made these statements in 1905, it was not until 1931 that a national committee was effected to attempt to solve the tuberculosis problem among the students of our colleges and universities. This country awaited the ingenuity of Charles Keene, who, as president of this organization, appointed a committee on tuberculosis in 1934. It was most fitting that the first meeting of this committee was held in Dr. Trudeau's old home at Saranac Lake, New York, and Dr. Keene was in attendance. I cannot pass without emphasizing the great role that Charles Keene has played in the school health work in general, and tuberculosis in particular, in this country. His sound judgment, stability and equanimity, have kept many a person from going on tangential excursions toward a goal which can never be attained by slipshod short-cut, theoretical, unsound and unscientific methods. Keeping the work and the workers at even keel has been one of his great contributions. This has been further manifested through his editorship of *The Journal of School Health.* His careful selection of articles, abstracts and numerous words of wisdom from his own pen, have made this Journal not only very informative, but an excellent guide for school health workers everywhere.

The Committee on Tuberculosis of this organization has been active since its appointment. From the beginning it was obvious

to the members that the tuberculosis problem varies somewhat in the schools from state to state. Therefore, a sub-committee should be at work in each state providing for the necessary tuberculosis activities in the schools. Now such a committee exists in every state and in some of our larger cities. Aside from the members of the personnel and part of the high school students, our work overlaps with that of the pediatrist. Therefore, a fine, cooperative effort has been developed between the committee on tuberculosis of the American Academy of Pediatrics and the Committee on Tuberculosis of the American School Health Association. This also extends to the sub-committees in the various states and cities.

Over the years, numerous projects have been considered for the schools, but the one which apparently offers the most promise in an educational way, and at the same time will rid the school system of contagious cases of tuberculosis, and enlist the interest and support of entire communities, consists of granting certificates to individual schools or whole systems which meet the qualifications set up by the sub-committee on tuberculosis of the state in which the schools are located. The tuberculosis situation still varies from state to state so that no group of qualifications is yet applicable to them. Therefore, each state and city sub-committee prepares its own qualifications. *Thus the basis on which schools can be certified is determined locally.*

The committee was originally of the opinion that certification of schools would stimulate a great deal of interest in tuberculosis which would be maintained through periodic renewal of the certificate. *Certification of schools has now been in practice long enough to prove its value in the tuberculosis control program of* any community. It was instituted in Minnesota for a trial period, and the first certificate was granted two years ago. This resulted in such a display of local pride that almost immediately a large number of inquiries was received. Individual schools and whole systems desired information as to how to become qualified for certification. Already more than 350 schools have been certified and large numbers of others are about to qualify. It is now predicted that nearly every school in the state will have a certificate on its wall within the next two or three years. Those who have been closest to the tuberculosis work and have been most active in it for the past quarter of a century state that no activity has ever been instituted in Minnesota that has resulted in so much interest and activity. Not only is this method rapidly spelling the doom of exposure of children and other personnel to the contagious teacher, bus driver,

cook, janitor, etc., but it is qualifying our children to perpetuate an ideal tuberculosis control program which will well nigh eradicate tuberculosis in many communities in their generation.

In the State of Maine, certification was recently adopted and the first certificate granted, is shown in Figure 1. This is a joint effort of the Maine Public Health Association and the Maine subcommittee on Tuberculosis of the American School Health Association. A unique pamphlet entitled "Five to Ninety-Five" bears a photograph of a child of five years with her great-grandfather of ninety-five. This pamphlet contains the reasons for the certification activity and also presents the qualifications necessary to obtain different types of certificates.

The fundamentals of tuberculosis control leading to eradication in any community have been well established and their efficaciousness has been proved. The ideal program for the school is exceedingly simple and can be employed in any community. The first step consists of administering the tuberculin test to all of the preschool and grade school children, and the high school students as well as every member of the personnel. Within 72 hours after the administration of this test, (with well known but unimportant exceptions) one knows which individuals are harboring living tubercle bacilli. Thereupon, one has the further information that all reactors have been exposed to contagious cases and in the body of each reactor there are at least primary tuberculous lesions. In our entire diagnostic armamentarium nothing but the tuberculin test provides us with so much accurate information concerning so many persons.

The fact that every individual, who reacts to tuberculin has been exposed to a case of contagious tuberculosis, is reason to institute a search for that case, particularly when the reactor is a child. The source of the infection is found with sufficient frequency to justify all of the effort. Children rarely have contagious tuberculosis, therefore, sources must be sought among the adult associates of the reactor. In the entire field of medicine there is nothing more fascinating than starting with a child who has only a tuberculin reaction and tracing to the source of the infection in a parent, grandparent or some other adult associate.

Since all of the tuberculin reactors, both children and adults, have tuberculous lesions containing living tubercle bacilli, a search should immediately be made for the location of these lesions. At any given time, the majority of them are only of the primary type. The location of relatively few can be determined during life. These

are located on or near the surface of the body in such places as the skin, the eye, the mouth, etc., which are easily inspected with the naked eye, or those in the lungs which have become large enough to cast shadows that can be visualized by the X-ray film. Approximately 80 per cent of the primary lesions do not attain such size or consistency or are so placed that their locations can be determined during life. However, with rare exceptions, they can be found at post mortem examinations done in sufficient detail. All these primary lesions are benign and rarely, if ever, cause incapacity or death. They are however the forerunners of and set the stage for the reinfection or destructive type of disease. First, they result in sensitivity or allergy of the tissues to the protein of the tubercle bacillus. Thus this protein becomes a deadly poison to tissues and it is this which makes reinfections from endogenous or exogenous sources result in illness and death. Therefore, every child or adult who reacts to tuberculin should be kept under close surveillance. Children under the age of about 14 years may develop tuberculous meningitis, miliary disease, tuberculous pneumonia, lesions in the bones and joints etc. Therefore, all who react to tuberculin are potential cases of such conditions. However, during this age period chronic tuberculosis of the lungs is rare. So rare, in fact, that it is not considered necessary to make periodic examinations of their chests.

About the age of 15 years the chronic type of tuberculosis begins to appear in the lungs of some tuberculin reactors. The number found at any given time is not large but increases with the decades of life, that is, more will be found in the 20's than in the teen ages, and so on, throughout life's span. Therefore, every one in the school system who has attained adulthood, (high school students and personnel) and reacts to tuberculin, should be examined for reinfection type of pulmonary tuberculosis. If none is found on the first examination, a search should be made annually. Whenever an X-ray shadow appears, laboratory and clinical phases of the examination are necessary to determine whether it is due to tuberculosis.

The various procedures above described, together with the proper disposition of all clinical cases of tuberculosis found, is adequate to control tuberculosis in any school system. By this method, no questionable, theoretical, or experimental procedures are employed. It consists only of that which is known to be efficacious. *Indeed, communities that have used this method over a considerable period of time have achieved much more in tuberculosis con-*

trol than those which have used any other method. There has been such a tumbling down of the infection attack rate with corresponding decreases in morbidity and mortality, that in some places the work "control" is being abandoned and the term "Tuberculosis eradication" substituted.

At the annual meeting of this Association one year ago, Ayling reported on the public and parochial high school students of Syracuse, New York, where such a program has been in effect since 1934. During these years the incidence of tuberculin reactors was reduced from 35 per cent to 6.2 per cent, and this year it is only about 4 per cent. In the City of Minneapolis, the incidence of tuberculin reactors among grade school children dropped from 47 per cent in 1926, to 8 per cent in 1944. Indeed, the annual infection attack rate is now only one-third of one per cent, which means that only one child in 300 is infected annually. Moreover, there is excellent evidence that this infection attack rate is decreasing. Apparently, it is only a short time until an infected child will be a rarity in this city.

Before the annual meeting of this association one year ago, Jordan presented a paper in which he reported 153 schools in his four-county sanatorium district where tuberculosis has been completely eradicated. In a more recent paper he states that in 1947 among 277 schools, there were 219 with no tuberculin reactors among the children. This is the most significant tuberculosis accomplishment that has ever been reported. It was done by the method above outlined. More than 200 schools in Jordan's district have the American School Health Associations certificates on their walls.

When Koch discovered the tubercle bacillus in 1882, he and many others hoped that in a short time an effective immunizing agent would be available as in smallpox. At that time it was not generally recognized that an attack of tuberculosis does not result in dependable immunity. Therefore, they were justified in attempting to produce an immunizing substance. Literally dozens of substances were prepared and used as the years passed, and extravagant claims were made for them on theoretical grounds but they all failed. Since it has been established beyond doubt that no one falls seriously ill or dies from tuberculosis who has not had previous disease which should have immunized, if it were comparable to smallpox, there has been little excuse to hope for an efficacious immunizing agent. Since 1920, about 7,000,000 persons have been given BCG with the hope that it would immunize them. BCG is a

living tubercle bacillus of the cattle type, which has been reduced in virulence. After adequate trial, the veterinarians of this country labeled it as a failure as it did not protect animals, including cattle, against tuberculosis. Of the many experiments conducted among humans none has been sufficiently controlled or carried out long enough to justify final conclusions. In a few instances where favorable results were reported, other uncontrolled factors could just as well have been responsible as the BCG.

There is no place in the world where by administering BCG the tuberculosis control achievement ever remotely approaches that of numerous areas in the United States where BCG has not been introduced. The method of control leading to eradication in this country has been proved to be efficacious beyond a doubt. BCG has not. Therefore, it seems unreasonable to substitute an unscientific, unproved experimental method for one that is certain to lead to eradication.

If BCG were administered to the school children of this country we would immediately face a terrific handicap in our tuberculosis control work. For example, the only dependable and accurate method we have of determining in whose bodies tubercle bacilli reside, as well as the determination of the effectiveness of any tuberculosis control program, is the tuberculin test. If we were to administer any substance which sensitized the tissues such as BCG or the vole bacillus vaccine to the school children, all of them would become reactors to tuberculin and thus the value of the tuberculin test would be nullified. Again if BCG were administered to the children our present tuberculosis educational program among them would lose practically all of its value.

Inasmuch as BCG is in such a state of controversy, it has been recommended that the United States Public Health Service conduct a very limited but carefully controlled human experiment over a sufficiently long time to establish facts. Until this is done BCG must be looked upon purely as an experiment. In the meantime the methods that have led to the greatest achievements in tuberculosis control in history should be vigorously prosecuted in our schools. Every child and personnel members should participate so Trudeau's vision with reference to education in tuberculosis will be realized.

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AN EVALUATION OF SCHOOL HEALTH SERVICE IN PUBLIC HEALTH

L. M. SMITH, M.D.

Director of School Health Service, Board of Public Education, Pittsburgh, Pennsylvania

It has been estimated on good authority that during the recent war, there were 2,700,000 men and women in our armed services who would not have been living had they been born thirty years earlier. According to reliable statistics from old-line life insurance companies, the average length of life for women today is sixty-six years, and the average length of life for men is sixty-four years, while in 1900 the average length of life was forty-nine years.

In order to evaluate health progress it is necessary to make comparisons. You are already familiar with many of the factors determining health progress which I shall mention in this paper. It is my purpose to recall to your mind a few important occurrences, and the names of a few persons who have played a part in the marvelous progress made in health over a period of a comparatively few years.

A former Associate Superintendent of Schools in my city comes into my office once each year for a physical check-up of his health. This gentleman was born in 1855, which makes him ninety-two years of age. Let us consider for a moment the progress in health that has been made in this one man's lifetime. In 1855 ninety-five per cent of our children never even saw the inside of a high school, and little did they realize that their immediate descendants would have our magnificent high school buildings, free colleges, and the great universities of today. None of these marvelous facilities for the dissemination of health service and education existed. There was no such thing then as a compulsory school attendance law, a child labor law, a pure food law, or any of our modern laws for the protection of human health and welfare.

Louis Pasteur, the great bacteriologist whose discovery has probably been the means of saving more lives than have been lost in all the wars since the beginning of history, had not yet seen a germ. Dr. Koch, the German bacteriologist, had not yet discovered the tubercle bacillus which was the first step in the control of this disease. Dr. Lister, the celebrated English surgeon, had not yet invented the carbolic spray which was the first step in antiseptic surgery and which made possible the millions of sterile operations being performed in our modern hospitals today.

Celebrated individuals, such as Sir William Osler, the great

internist, Howard Taylor Ricketts, the great pathologist, Sir Frederick Grant Banting, the discoverer of insulin, William Thompson Sedgwick, a pioneer in public health, William Crawford Gorgas, the foe of yellow fever, Lillian D. Wald, a pioneer in public health nursing, Dr. Josephine Baker, a pioneer in child health work, were not known and some of them not even born. As a matter of fact, in 1855, the date of this man's birth, physicians, surgeons, and health officials were stumbling along in the dark, and had made very little progress in our six thousand years of history.

Thus far I have spoken of occurrences in one man's lifetime. Now let us consider conditions as they existed in the year 1900, which would be approximately half one man's lifetime. In 1900, the greatest causes of death according to our best statistics were: First, enteritis, commonly called "Summer Complaint" by the laity, which unnecessarily caused the death of millions of babies each year. In 1907, when Dr. Josephine Baker established a Bureau of Child Hygiene in New York City, the death rate from enteritis was 117 per thousand births. In 1945, the year of her death, the death rate was 30 per thousand births. This disease was rapidly eliminated by the pasteurization of milk, the education and training of mothers in the rules of sanitation and in the feeding of children, the establishment of milk stations throughout the country, and the practice of immunization in early childhood.

The second cause of death in 1900 was tuberculosis. Physicians were still arguing at that time as to whether rest or exercise was the proper treatment. The discovery of the tubercle bacillus and the establishment of the rest cure treatment throughout the country; the use of pneumothorax, phrenicectomy and thoracoplasty, plus the tuberculin test and X-ray, which make early discovery and diagnosis possible, have brought the death rate from this disease down from 202 per one hundred thousand in 1900, to 45 per one hundred thousand in 1945. Where we formerly had five deaths from tuberculosis, we now have only one, and I dare say that in another twenty years the present death rate from tuberculosis will be cut in half.

The third greatest cause of death in 1900 was diphtheria. The Schick test and immunization as practiced generally in our schools have practically eliminated this disease as a problem. Where we formerly had thousands of cases throughout the country, killing mostly children, we now have a few hundred, and we know that the few cases of diphtheria that occur each year can be eliminated entirely.

The fourth cause of death in 1900 was typhoid fever. Our knowledge of sanitation, the establishment of filtration plants, the discovery of the typhoid bacillus, and immunization have completely eliminated this disease as a factor in public health. Health education also played a major part in the elimination of typhoid fever.

These four causes of death in 1900 could be classified as diseases of filth, poverty, and ignorance. By eliminating them we have millions of people now living who would have been dead had they been born a few years earlier.

Let us consider for a moment how these four diseases were eliminated as menaces to public health. In my opinion there are three important factors or activities which have served to dispose of them as major causes of death.

First, the marvelous advance made in medical science. The X-ray, blood chemistry, modern bacteriology, skilled surgery, the discovery of insulin, the sulfa drugs, and penicillin, various tests and immunizations, the basal metabolism test, physiological chemistry, and better diagnosis all point to the marvelous advance in medical science.

The second factor in the elimination of these diseases is our modern knowledge of sanitation. Our American Public Health Association has pointed out that it would be practically impossible to live in our modern American cities without present knowledge of sanitation. Modern plumbing, pure food laws, filtration plants, garbage disposal, health education, and general cleanliness all play a part in prolonging human life.

The third, and in my opinion, very important factor in the elimination of these diseases of 1900 is modern medical, dental, and nursing service in our public and private schools, better known as school medical inspection. Few people realize the vast aggregate amount of health improvement which is the direct result of health activities in our schools. The prolongation of average life expectancy from forty-nine years in 1900 to sixty-five years in 1945 was due mainly to the conservation of child life. Undoubtedly, health services and health education in our public and private schools throughout the country have played a major part in the extension of the average human life span. Medical examination for the discovery of physical defects with follow-up work by the school nurse for correction service, plus medical inspection for communicable disease, with tuberculin testing, X-ray examination, Schick testing and immunization, and health educa-

tion of children have undoubtedly saved millions of lives. Today, for example, the smallest school child knows that if he cuts his finger, an antiseptic must be applied and the part kept clean.

At this point are inserted a brief summary of the accomplishments of the school health services in Pittsburgh for the year 1946-47. Ed.

Summary—Work of the School Health Service, Pittsburgh, 1946-1947, Public, Parochial and Private Schools:

Examined	53,489
Found Normal (35.5%)	18,901
Nutrition (good) 81%	43,634
Defects (poor nutrition not included)	18,486
Of these 24% were infectious skin diseases. Corrections secured, 44%.	
Tuberculin tests made	19,864
Positive reactors (42.8%)	8,504
School nurses activities:	
Total treatments obtained	49,772
Tonsil and adenoid operations obtained	4,516
Visits made	35,955
Eye refractions obtained	6,030
Consultations (teachers, parents, pupils)	188,543
Assisted at all medical examinations	53,489
Dentist's Work:	
Total number examined	53,979
Percentage having dental defects	85.8

After looking at these statistics you will readily agree that, although we have made considerable progress in matters of health, there is nothing about which we can become overly optimistic. We have merely scratched the surface.

All of you are acquainted with the findings in the examinations for selective service during the recent war. Although we are probably the healthiest nation in the world, the public was shocked by the findings among our young adults. Following are some statistics from the report of Surgeon General Norman T. Kirk on 5,000,000 4F's between the ages of eighteen and thirty-seven. Of these 5,000,000 4F's, five hundred thousand were not even examined because their physical abnormalities were so obvious. One-third of the remaining 4,500,000 were mental defectives of some type, listed as 676,000 mental deviates, 856,000

neuro-psychiatrics, and 10,000 morons and idiots, and 376,000 were hunchbacks, amputees, etc.

In addition, Dr. Kirk listed 317,000 heart abnormalities among the 4F's, 260,600 hernias, 254,000 syphilitics, 234,300 incurable defective vision, 189,700 incurable defective hearing, 129,000 active tuberculosis, 65,700 flat or club feet, 64,700 kidney disease, 53,300 varicose veins, 48,200 glandular defects of one kind or another, 45,300 rectal abnormalities, and 19,300 venereal disease other than syphilis.

Do these figures indicate neglect of our youth? It is my opinion, after almost forty years in school health service work, that fully half of these 5,000,000 4F's were victims of neglect during childhood and early youth.

According to our best authorities, the principal causes of death today are heart disease, cancer, arterio-sclerosis, and kidney disease, in the order named. These can be called the degenerative diseases and occur most frequently after middle life. A great deal can be done to eliminate early death from these degenerative diseases by proper health service and education among school children. The abscessed tooth today may mean the leaking heart tomorrow. The diseased or irritating part today may become the cancer of tomorrow. We must extend our efforts toward eliminating disease and defects among our school children if we hope to decrease the early occurrence and the amount of degenerative diseases among the aged. We can be reasonably sure that in a very few years the average length of life will have reached the biblical three score and ten.

The extension of the life span can be accelerated by more and better health service to our school children. We must break the bottleneck of correction service. The examination and re-examination of indigent and underprivileged school children without proper financial arrangements for the follow-up program is a partial waste of time and money. The recent session of the legislature of my state appropriated $500,000 for this purpose. If all the states would follow Pennsylvania's lead in providing financial assistance for corrective service to underprivileged school children, our national public health could be immeasurably improved.

It has often been said that health is a purchasable commodity. If we want to attain good public health, we must spend more money for health services and health education in the schools of our country. What we have seen in health progress in the past

few years is a trivial performance compared to what we should see in the future. We must all remember that the health problam is like the social problem—it is not curable, but it can be improved, and this improvement is in direct ratio to the amount of money the public is willing to spend for this purpose.

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OUR NEW OFFICERS

President: David Van Der Slice, B.S., M.D.

Born: Cheney, Nebraska, July 5, 1910.

Graduated: High school, Lawrence, Kansas, 1927.

B.S. degree from Michigan State College, 1934.

University of Michigan Medical School in 1935.

Served one year Rotating Interneship, Grace Hospital, Detroit, Michigan, 1935-36.

Obtained an M.S.P.H., the University of Michigan, 1937.

District Health Officer: Clare, Gladwin and Arenac Counties, employed by Children's Fund of Michigan, first six months of 1937.

School Physician and Director of the School Health Service, Ann Arbor Public Schools, 1937-44.

Director of School Health Program, Flint Public Schools, 1944 until present.

Lecturer on School Health Administration School of Public Health, University of Michigan, 1938 until present.

Professional Affiliations: Past President, Delta Chapter of Delta Omega; Past President, Michigan School Health Association; Member of Alpha Kappa Kappa Medical Fraternity.

Fellow of A.P.H.A. and A.S.H.A.

Member Michigan Medical Society.

Member American Medical Association.

Married Magdalene DeWitt in 1935; two children, 1 son, John, 7½ years; one daughter, Mary, 2½ years.

* * * * *

President Elect: Cyrus H. Maxwell, M.S., M.D.

Born: June 6, 1899, Aurora, West Virginia.

Graduate: Morgantown, West Virginia, High School.

Bachelor of Science: West Virginia University, 1921.

Master of Science: University of Illinois, 1922.

Taught Biology: Lincoln College, Lincoln, Illinois, 1922-24.

Attended: West Virginia University Medical School, 1924-26 and Harvard University Medical School, 1926-28 with M.D., 1928 from Harvard.

Interneship in Pediatrics: New Haven Hospital (Yale teaching hospital) 1928-29.

Interneship: Infants' and Children's Hospital, Boston, (Harvard teaching service) in Children's Surgery, 1929-30.

Associate Resident in charge of Pediatric Out-Patient Department, Strong Memorial Hospital, Rochester, New York, 1930-31. This was a teaching service of the University of Rochester Medical School and he had charge of the teaching of the fourth year medical students their out-patient pediatrics, and taught pediatrics to the student nurses as well.

Private practice of pediatrics and allergy, Auburn, New York, 1931-37.

School Medical Supervisor: Auburn, New York, Public Schools, 1932-37.

Chief of Bureau of Health Service: New York State Education Department, 1937 to date.

Enlisted man in World War I.

Officer Medical Corps, World War II, Captain to Colonel, five years in U. S. and European Theater of Operations. Commanded a general hospital part of the time.

Contributions to Medical Literature (partial). "Treatment of Congenital Syphilis with Acetarsone by Mouth," American Journal of Diseases of Children.

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Member Medical Society of the State of New York.

Member American Medical Association.

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ATHLETIC STANDARDS NEEDED TO PROTECT HEALTH OF ADOLESCENTS*

By FOSTER KEAGLE

Assistant Director of Illinois Health and Physical Education

Since adolescence is one of the most critical periods in a child's life his health should be guarded very carefully by the school. The normal older boy may engage in tremendous physical activity without harm, but the type and amount of activity of the adolescent child should definitely be limited.

With this in mind a number of school administrators and athletic directors of Illinois junior high schools, in conjunction with the state's health and physical education department, drew up a tentative set of standards for elementary school athletics. These in turn were sent to elementary administrators and coaches throughout the state. Twenty standards were agreed on as follows:

Standards

1. An annual health examination should be demanded of all athletes before participation in practice or competition; and a written statement of approval, signed by the examining physician should be on file in the principal's office.
2. No pupil may be a member of a school athletic team without the written consent of at least one parent.
3. The athletic team should be under the direct supervision of a qualified adult designated by the school administrator.
4. Every school should have a formulated policy regarding the financial responsibility for injury incurred in athletics, and this policy should be known to all participants and their parents.

The recommended standards were:

1. There should be a minimum of three weeks of practice before the first interscholastic game is played.
2. Not more than one game a week should be played. If after-school games are not possible, then early evening games starting no later than 7:30 o'clock and scheduled on nights not preceding school days may be played.
3. The season's schedule should not exceed sixteen games, excluding tournaments.
4. No game should be played which requires staying away from home overnight, or which requires more than a 75-mile round trip.

*Condensed from Educational Press Bulletin.

5. Playing quarters should be six minutes in length and all time out periods two minutes.

6. A player who has been absent from school and under the care of a physician should bring a written statement from the physician approving his participation in athletics. A player absent from school because of illness, but not under the care of a physician should secure a written statement from the school nurse or his parent.

7. A boy who is not overweight should not be permitted to lose weight in order to make a lightweight team. No one should be permitted to play on both light and heavyweight teams.

8. An athlete with a head, neck or spine injury, or suspicion thereof, should be removed from a game or practice, placed at rest, and given a thorough examination by a physician as soon as possible.

9. A participant who is still flushed and perspiring after showering and dressing should be cautioned not to leave the building during cold or inclement weather until his hair is dry and he feels normal.

10. Adequate shower facilities should be provided and participants taught to use them after every practice or game.

11. Weight of players should be checked and recorded on a chart at each practice session. Any abnormal deviation in the weight of a player should be investigated.

12. Practice sessions should be limited to one and a half hours a day, four days a week.

13. Members of the athletic teams should be doing passing work in school.

14. A team may participate in one tournament in addition to the state contest.

15. All athletic contests should be officiated by at least one registered official.

16. There should be an exchange of eligibility lists between schools at least five days prior to a contest.

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EDITORIAL

Finances or Morals,—Reverting to the presentation in the December Journal of some tables relating to expenditures per classroom and the accomplishments in those classrooms, there is an article by Stanley High in the December Reader's Digest entitled, "Our Schools Need More Than Money," in which he says, among other things, "that the nature of the malady (the sickness in our educational system) is not academic, but moral; that better pay for our teachers, greater prestige for our schools will not cure it—unless the moral purposes of education are revived; "that starting such a revival is up to us, laymen and parents."

What we need (to paraphrase Mr. High) is not more "tools", but truths and a burning conviction that they are worth fighting for.

He quotes Horace Mann, who a century ago asked: "Do they (our public schools) cultivate the higher faculties in the nature of childhood—its consciousness, its benevolence, a reverence for what is true and sacred? Or are they only developing upon a grander scale the lower instincts and selfish tendencies of the race?"

Also he cites the Regents inquiry into secondary school education in New York State, which concluded: "In spite of the fact that New York's schools are as good as those in other states, we are turning out a vast number of boys and girls each year who are not ready for adult life. They have no idea what work means, what sorts of opportunities there are, how to look for work, or

how to work when they get a job. They are not prepared to be useful citizens or to enter community or home life. They do not know how to take care of their own bodies or minds. Few have implanted in them any seeds of inner life and growth, any skill in working with others, or any protections against mob hysteria, propaganda, shallow prejudice or economic gold bricks."

This is the verdict of a group of unprejudiced experts on the output of the schools of the state that spends more per classroom per year than any other state in the country.

"It is time," says Mr. High, "we woke up to the disheartening fact that there is no educational virtue, per se, in increased educational appropriations. It is time we gave as much attention to what our children are taught as we give to the kind of building they are taught in and the salaries paid their teachers. It is time we followed our school children and our school dollar into the school to help our educators revive those purposes which will enable education to meet the moral needs of America."—*C. H. K.*

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Jersey City,—Llouella Louisa Hoage, R.N., recently sent to Secretary A. O. DeWeese, M.D., a packet of 58 new members, a 100% enrollment of the Board of Education nurses of that city.

Supervisor of Nurses Hoage is to be congratulated on her successful efforts, and Jersey City and its schools are fortunate in having a thoroughly professional-minded staff of school nurses.—*C. H. K.*

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ABSTRACTS AND NOTES

Why Do We Get Fat,—Is obesity a disease? A hereditary affliction? A general strike of the endocrine glands? No, it is none of these things. Obesity in men, women, and children at any age, with rare pathological exceptions, has one cause only—*too much food.* Why do so many middle-aged people accumulate excess weight? Because with advancing years they become physically less active, burn less food and store more, and the storage is not muscle or bone, but fat. This would be all right if nature at the same time curbed the appetite. But appetite is a matter of training and habit; it keeps right on the job, and so in this land of milk and honey the tide of fat cells keeps rolling in and up.

The high school or college graduate hangs his athlete's sweater in the closet, puts on a collar and tie, and gets his exercise in a swivel chair. The girl graduate who took her compulsory physical education in school and danced her way to popularity, obtains her exercise standing over a kitchen sink or thumping a typewriter.

Their calisthenics are confined to twisting a steering wheel and manipulating a knife and fork.

After a few years of this kind of life they suddenly discover that their clothes don't fit. That dress suit or evening gown they wore to a wedding last year has unaccountably shrunk. They step on the scales and are horrified to discover the indicator hovering around the 200 mark. (Those scales can't be right!)

These folks tell the doctor, when they apply for a job or for life insurance: "Why, doctor, I eat like a bird!" "I never eat breakfast." "I always take my coffee (ten or twelve cups) black." "I *never* have a second helping of anything". "Overweight runs in my family. All my folks are plump." "I don't see why my blood pressure should be high; I feel fine."

And they actually believe these things. But the realistic man of medicine knows they are fooling themselves. He knows they must be consuming more calories than they need. He is sure that if they kept track on paper of all the food they consumed in a week, they would be appalled. For, much of our food consumption is habitual and unconscious. We eat when we feel the urge and promptly forget what we ate. We also fail to realize that a ginger ale has 128 calories, a chocolate malted milk 400, and a chocolate nut bar 500.

How To Fight Fat—There is only one safe and sure way to avoid overweight and that is to consume fewer calories. The public has been reminded of this simple physiological fact over and over again, in the popular magazines, via the radio, and in newspaper health columns. Yet thousands of people still resort to trick diets, drugs, massage, steam baths, vibratory machines, drastic cathartics, and "thought control" in a futile and expensive search for some magic method of losing weight without depriving themselves of cream puffs and chocolate sundaes. They go on digging their graves with knife and fork and spoon and teeth and wonder why their teeth fall out before the grave is dug*. A doctor with a gift for epigrammatic expression put it neatly when he said, "We live on one-third of what we eat and the doctors live on the other two-thirds." Excess fat is a hitch-hiker that not only doesn't pay for the gas but that robs the driver.

Certainly, one can lose weight temporarily by any of the aforementioned methods. Let's see how it's done. You can sweat off weight by violent exercise or steam baths—you can lose 5 or 6 pounds in a Turkish bath and ten pounds in a football game (not of course by sitting in the bleachers). But the loss is mostly water

*Read "How America Eats", *Hygeia*, May, 1947.

and you soon drink it back. You can burn it off by exercise or drugs. When you burn it off by exercise you eat it back. When you burn it off by thyroid extract you put a strain on your heart and nervous system. When you burn it off by dinitrophenol or some other metabolic speeder-upper you damage your nerves, your kidneys, or you go blind. When you have it massaged or vibrated off you are getting your exercise the lazy way and you soon eat back the water and fat. When you take cathartics like epsom salts or castor oil or phenolphtalein (ex-lax) you are eliminating water through the bowels. Our bodies are three fourths water, a fact evidently ignored by Shakespeare when he had Hamlet declaim—"O, that this too, too solid flesh would melt."

The thousands of "trick" diets that have been concocted by enterprising get-rich-quickers all depend on some form or degree of starvation. They lack some or all of the protective and body-building foods that contain proteins, vitamins, and minerals. For example, a reducing diet including milk is a rarity—unless prescribed by a physician or planned by a nutritionist. From article, The Secret of Beauty, by John L. C. Goffin, M.D., in *Health Education Journal*, Los Angeles, Oct., 1947, p. 12.

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Doctor Bauer Receives National Award,—At the Seventh Anniversary Civic Luncheon of the Cleveland Health Museum, Hotel Statler, November 17th, Dr. W. W. Bauer, director since 1923 of the American Medical Association's Bureau of Health Education, received the 1947 Elisabeth Severance Prentiss National Award in Health Education. The award was established in 1943 to encourage outstanding work in the field of health education and to honor the memory of the Museum's first foundation benefactor.

As a tribute to his contributions to health education, Doctor Bauer was presented with a replica plaque of the original bronze award model, which is on permanent display in the Museum. He also received an embossed certificate outlining his achievements as a health officer, author, lecturer, broadcaster, and advisor in personal and public health.

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Maine,—The state of Maine has a new Commissioner of Health and Welfare, David H. Stevens, succeeding Leverett D. Bristol, M.D., who resigned. The new Commissioner had served five years as State Tax Assessor. Previous to that, he had been Town Manager of several Maine municipalities.

The former Commissioner, Dr. Bristol, had a long and successful training and experience in public health.

REVIEW

Nursing in Modern Society. *Mary Ella Chayer, R.N., A.M.* J. P. Putnam's Sons, New York, 1947, pp. 288. Price $4.00.

This is the first of a series of texts planned for Modern Nursing.

The author is well known in her field, particularly in that of nursing as a part of the School Health Program.

She takes the reader through a discussion of the impact of social forces upon nursing, the relation of social forces and community health needs, and presents suggestions for building a better future.

Of particular interest to those engaged in or interested in the health of the school child are the chapters on "The Widening Concept of Public Health," "The Newer Approach to Child Development," "The Fundamental Concerns of Parents," and "The Promise of Health Education." The chapters are made more valuable by Questions for Study, and Additional Sources.

This is a valuable text for those desiring a wider acquaintance with our present concepts of the duties and values of the nurse in the fields of Public Health and of School Nursing.—*Charles H. Keene.*

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MEETINGS

The International Council for Exceptional Children is holding its twenty-fourth Annual Convention in Des Moines, Iowa, from April 25 to April 28, 1948.

Convention headquarters will be at Hotel Fort Des Moines. The International Council for Exceptional Children is composed of educators and social workers interested in the problems of the handicapped child.

Individuals interested in attending this convention should make their reservations early by writing to Mrs. Betty Whitford, 629 Third Street, Des Moines, Iowa.

American School Health Association and the American Public Health Association, Boston, November 8, 1948.

American Association for Health, Physical Education and Recreation, St. Louis, Mo., April, 1948.

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